

K042207

Traditional 510(k) Premarket Notification

USA Instruments  
1.5T Peripheral Vascular Coil

AUG 26 2004

### SUMMARY OF SAFETY AND EFFECTIVENESS

1. Device Name: Magnetic Resonance Imaging Accessory
2. Proprietary Name: Rapture 11000
3. Classification: Class II
4. Establishment Registration #: 1529041
5. Manufacture Facility Location: USA Instruments, Inc.,  
1515 Danner Drive  
Aurora, Ohio 44202, USA  
Telephone: 330-562-1000; Fax: 330-562-1422.
6. Performance Standard: No applicable performance standards have been issued under Section 514 of the Food, Drug and Cosmetic Act.
7. Intended Use: The Rapture 11000 a phased array peripheral vascular coil is a multi-element phased array RF coil, used for obtaining diagnostic images of the vasculature and soft tissue anatomy extending from below the knee to the foot region, in Magnetic Resonance Imaging Systems. The Rapture 11000 Peripheral Vascular Coil is designed for use with the Signa 1.5T MRI system manufactured by GE Healthcare Technologies. The indications for use are the same as for standard MR Imaging.
8. Device Description: The Rapture 11000 a peripheral vascular coil is a multi-element phased array receive-only coil. The coil consists of four sections: two detachable legs sections, a main base and a pre-amplifier box. The open, patient friendly design maximizes patient comfort. The coil elements and accessory electronics are enclosed in a rigid plastic housing, which is fire rated and has a high impact and tensile strength.
9. Safety and Effectiveness

A1-2

Rapture 11000 Phased Array Peripheral Vascular Coil	Comparison to predicate device or other 510(k) cleared products
<b>Intended Use:</b> Imaging of vasculature and soft tissue anatomy extending from the torso to the foot region	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339, K010730) and Champion 5000 (K023247).
<b>Indications for Use:</b> Identical to routine MRI imaging	-Similar to the Flow 7000 Peripheral Vascular Coil manufactured by USA Instruments, Inc. (K982339, K010730) and Champion 5000 (K023247).
<b>Coil Enclosure Material:</b> Flame Retardant Polyurethane  Vinyl Coated EVA Foam  Flame Retardant Polycarbonate	-Similar to materials used in Spirit III TotalSENSE Cardiac Coil (From 510(k) K031172)
<b>Coil Design:</b> Receive-only phased array coil	-Similar to the Flow 7000 Peripheral Vascular Coil (K982339, K010730) and Champion 5000 (K023247) manufactured by USA Instruments, Inc.
<b>Decoupling:</b> Switching diode decoupling	-Similar to the Flow 7000 Peripheral Vascular Coil (K982339, K010730), Champion 5000 (K023247) and Spirit III TotalSENSE Cardiac Coil (K031172) manufactured by USA Instruments, Inc.
<b>Prevention of RF Burns:</b> Does not transmit RF power; decoupling isolates the coil elements from RF fields during RF transmission; coil elements and circuitry are enclosed in a non-conductive housing.	-Similar to the Flow 7000 Peripheral Vascular Coil (K982339, K010730), Champion 5000 (K023247) and Spirit III TotalSENSE Cardiac Coil (K031172) manufactured by USA Instruments, Inc.
<b>Radio Frequency Absorption:</b> Coil is a receive only coil and does not transmit RF power	-Similar to the Flow 7000 Peripheral Vascular Coil (K982339, K010730) and Champion 5000 (K023247) manufactured by USA Instruments, Inc.
<b>Formation of Resonant Loop:</b> Decoupling isolates the coil elements from RF fields during RF transmission; length of cable and stiffness does not permit looping	-Similar to the Flow 7000 Peripheral Vascular Coil (K982339, K010730) and Champion 5000 (K023247) manufactured by USA Instruments, Inc.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

AUG 26 2004

USA Instruments, Inc.  
% Mr. Daniel W. Lehtonen  
Staff Engineer-Medical Devices  
Intertek Testing Services NA, Inc.  
70 Codman Hill Road  
BOXBOROUGH MA 01719

Re: K042207

Trade/Device Name: 11000 Rapture Phased Array  
Peripheral Vascular Coil

Regulation Number: 21 CFR 892.1000

Regulation Name: Magnetic resonance  
diagnostic device

Regulatory Class: II

Product Code: 90 MOS

Dated: August 13, 2004

Received: August 16, 2004

Dear Mr. Lehtonen:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

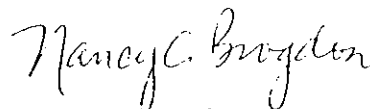
This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of the letter:

8xx.1xxx	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97) you may obtain. Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

## STATEMENT OF INTENDED USE

510(k) Number (if known): 1042207

Device Name: Rapture 11000

## Indications for Use:

The Rapture 11000 a phased array peripheral vascular coil is a multi-element phased array RF coil, used for obtaining diagnostic images of the vasculature and soft tissue anatomy extending from below the knee to the foot region, in Magnetic Resonance Imaging Systems. The Rapture 11000 Coil is designed for use with the Signa 1.5T MRI system manufactured by GE Healthcare Technologies.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use ✓  
(Per 21 CFR 801.109)

OR over-the-counter Use \_\_\_\_\_

Nancy Broglon  
(Division Sign-Off)Division of Reproductive, Abdominal,  
and Radiological Devices510(k) Number K042207